

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

TAMARA M. DERVIN, on behalf
of Herself and All Others Similarly
Situating,

Plaintiffs,

v.

NBTY, INC., a Delaware Corporation, and
NATURE'S BOUNTY, INC., a Delaware
Corporation,

Defendants.

Class Action Complaint For:

**1. Violation of Illinois Consumer
Fraud Act**

COMPLAINT

Plaintiff Tamara M. Dervin brings this action on behalf of herself and all others similarly situated against Defendants NBTY Inc. and Nature's Bounty (collectively "Defendants") and states:

NATURE OF ACTION

1. Defendants manufacture, market, sell and distribute biotin supplements under its Nature's Bounty brand. The products include: (1) Biotin 5000 mcg; (2) SUPER POTENCY Biotin 5000 mcg; (3) QUICK DISSOLVE Biotin 5000 mcg; (4) Biotin 10,000 mcg rapid release liquid soft gels; and (5) Biotin 10,000 mcg Health & Beauty rapid release liquid softgels (collectively, the "Products" or "Defendants' Biotin Products").

2. On the front of Defendants' Biotin Products, Defendants represent that the products "Support Healthy Hair, Skin & Nails." These representations are collectively referred to as the "health benefit representations."

3. Defendants' health benefit representations are false, misleading or reasonably likely to deceive consumers of these products.

4. Defendants' marketing, advertising and sale of supplemental biotin is based in large part on the erroneous belief that biotin the nutrient helps support hair, skin, and nails and thus the faulty logic follows that supplemental biotin will do the same.

5. This is false for at least two reasons (1) biotin the nutrient does not support hair, skin, or nails and (2) in any event, as more fully set forth below, our needs for biotin are finite and we obtain more biotin than we need from the foods we eat such that the supplemental biotin Defendants sell are superfluous, unneeded, and worthless.

6. The sole active ingredient in Defendants' Biotin Products is a supplemental form of Biotin.

7. Each of Defendants' Biotin Products are marketed with the same uniform health benefit representations with the only difference being the amount or dose of each tablet.

8. Because each of Defendants' Biotin Products include the same sole active ingredient and the science is the same with regard to whether or not Defendants' Biotin Products work as represented, there are no material differences between these products.

9. The Biotin Products are sold in major food, drug, and mass retail outlets in the country including, but not limited to Mariano's and Target, where Plaintiff purchased her Biotin Products.

10. A single container of these Biotin Products retails in the range of \$7.00-\$23.00.

11. As more fully discussed below, neither biotin the nutrient nor supplemental biotin support hair, skin or nail health.

12. Rather, as discussed below, while biotin the nutrient that is derived from eating foods plays an important role in our metabolism, it does not support hair skin or nail health.

13. In addition, because we only need a finite amount of biotin which is more than amply provided from the foods we eat, the supplemental biotin sold by Defendants is unneeded, superfluous, and worthless.

14. In short, purchasing Defendants' supplemental biotin products serves no purpose, let alone supporting hair, skin, or nail health.

15. Furthermore, supplemental biotin does not and cannot even provide the same benefits as biotin the nutrient, which as discussed more fully below, has a singular and finite function in connection with our metabolism.

16. Throughout the relevant time period, Defendants have consistently conveyed the health benefits message of their Biotin Products to consumers throughout Illinois and the United States.

17. Each and every consumer who purchases the Biotin Products is exposed to the false, misleading, or deceptive health benefit representations which appear prominently and conspicuously on the front of each of Defendants' Biotin Products as shown by copies of representative labels attached hereto as Exhibit A.

18. But for .00138 of the population who have certain rare genetic disorders affecting their metabolism, the remaining .99862 of the persons ("the general population") do not suffer from any sort of biotin deficiency that would require Defendant's mega-dose Biotin Products, and persons in the general population do not suffer from any purported biotin deficiency let alone one that would affect their hair, skin, or nails.

**THE RECOMMENDED DAILY INTAKE OF BIOTIN IS 30 MCG, AND THE
GENERAL POPULATION GETS MORE THAN THEY NEED FROM
THEIR DIETS AND BIOTIN RECYCLING**

19. When there is sufficiently precise data of how much of a vitamin is in our bodies (also called its “status”), the Institute of Medicine of the National Academy of Science (“IOM”) can then better establish the lowest quantity of the daily intake of that vitamin sufficient to meet the daily needs of the general population - this is called the Recommended Dietary Allowance (“RDA”).

20. If the IOM cannot obtain sufficiently precise measures of a vitamin’s status in our bodies, they set what is called an Adequate Intake (“AI”).

21. Per the IOM, when it sets an AI for a vitamin, it intentionally sets this at an amount that is an overestimate of the daily needs in order to ensure that the general population obtains sufficient amounts of a vitamin on a daily basis.

22. For several decades, Mock and colleagues tried to find a precise measure of biotin status for the general population.

23. They did so because Dr. Mock proffered a hypothesis that certain persons in the general population, in particular pregnant women, were “marginally deficient” in biotin – meaning that they needed some small amount of additional biotin – in the range of 5-30 mcg - to meet their daily needs.

24. He would present this hypothesis in an even more alarmist manner, asserting that marginal deficiency in pregnant women was teratogenic (e.g., that it caused birth defects).

25. However, this hypothesis remains an unproven hypothesis like so many others that have been dashed against the rocks of scientific reality because marginal deficiency has not been shown to exist in anyone, let alone pregnant women.

26. Further, the most that Mock and colleagues found during their over three decades of research was that what he called “marginal deficiency” caused what he coined “metabolic derangements.”

27. In retrospect, that was an alarmist and overly stark description – “metabolic derangements” - that even if they existed, by his own admission, did not produce any clinical symptoms, such as hair skin or nail problems, let alone birth defects in humans (teratogenicity). In addition, even if these “metabolic derangements” were caused by Mock’s hypothesized “marginally deficient” state, it is a clinically meaningless observation, because such persons exhibit no symptoms or adverse effects, indicating that, at best, what he observed were “minute metabolic” changes that are of no concern and, most importantly, do not require correction by supplemental biotin let alone Defendants’ mega-dose biotin.

28. Moreover, the purported “metabolic derangements” that he observed in persons he claimed were “marginally deficient” were small elevations or accumulations of certain metabolites. However, there are other explanations for these small build-ups of specific metabolites that have nothing to do with the degree of purported biotin deficiency.

29. Thus, despite decades of research, mostly by Mock and colleagues, in a failed effort to prove the existence of marginal deficiency what they did do was establish that there is not a sufficiently precise measure of biotin status and, as a result, this is why the IOM set an AI for biotin instead of an RDA.

30. Thus, in 1998 the IOM set an AI for biotin of 30 micrograms (mcg) per day for people 19 years and older and even less for younger people. Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic Acid, Biotin, and Choline (“IOM Dietary Reference Intakes”), INSTITUTE OF MEDICINE, at pp. 374, 382,

available at <http://www.nap.edu/catalog/6015/dietary-reference-intakes-for-thiamin-riboflavin-niacin-vitamin-b6-folate-vitamin-b12-pantothenic-acid-biotin-and-choline>.

31. The IOM reaffirmed this AI for biotin in 2006 and in 2016 the FDA adopted the IOM AI of 30 mcg for the general population and said that it reflected a consensus of experts in the field. Moreover, per the IOM, persons in the general population ingest between 35 mcg to 75 mcg of biotin per day just from the foods they eat.

32. The only difference between the FDA and the IOM is that the latter recommends that pregnant women ingest an additional 5 mcg of biotin per day or a total of 35 mcg—an amount that is easily obtained through dietary changes during pregnancy.

33. As a result, even after considering Dr. Mock’s “marginal deficiency” research, the IOM has repeatedly stated there are no reported instances of biotin deficiency in the general population, marginal or otherwise.

34. This is because it is likely that the general population’s daily needs are even less than 30 mcg. As per the IOM, the AI is an overestimate of their needs and the general population ingests biotin in amounts that are above the AI on a daily basis.

35. Furthermore, as explained in greater detail below, humans can recycle biotin. Recycling plays a role in ensuring that those in the general population have more biotin than they need just from their diets, making supplemental biotin superfluous and unneeded.

36. Since there is, at all times, sufficient biotin in the body, if more biotin is ingested than needed, such as via Defendants’ mega-dose biotin products, saturation occurs. In these instances, the body does not use this surplus biotin, but excretes it.

BIOTIN THE NUTRIENT

37. Biotin the nutrient is a colorless, water soluble B vitamin found in many foods including fruits, vegetables, cereals, and meats and fish.

38. Biotin functions as a biochemical co-enzyme (a helper of sorts) for certain enzymatic reactions that are involved in the metabolism of fats, carbohydrates and amino acids.

39. Because there are only a finite number of enzymatic reactions that need biotin, the human body only requires a finite amount of biotin on a daily basis to perform its various enzymatic functions.

40. Thus, unlike some vitamins where it is believed that more may be better, biotin is not a more is better vitamin.

41. Because our bodies cannot synthesize biotin on their own, humans have evolved biotin recycling which in turn ensures that if the dietary intake of biotin was not sufficient to supply the finite amount of biotin needed, it would be supplied by recycling. The exception to this is an infinitesimally small number of persons with extremely rare disorders of biotin metabolism (.00138 of the population), some of whom cannot recycle biotin.

42. Thus, although biotin is ubiquitous in the foods we eat, humans can also recycle their biotin, such that the other .99862 of the population free of the aforementioned disorders (“general population”) have no need for supplemental biotin, let alone Defendants’ mega-dose biotin.

43. As such, although biotin is an essential vitamin that plays a key role in our metabolism without which we would die; evolution/mother nature has ensured that we always have sufficient or more biotin than we need from natural sources.

44. Yet, Defendants' Biotin Products contain what are known as "pharmacologic" or mega-dose doses of biotin of 5,000 mcg and 10,000 mcg – enormous multiples of our daily needs.

45. Defendants' Biotin Products do not and cannot benefit those in the general population.

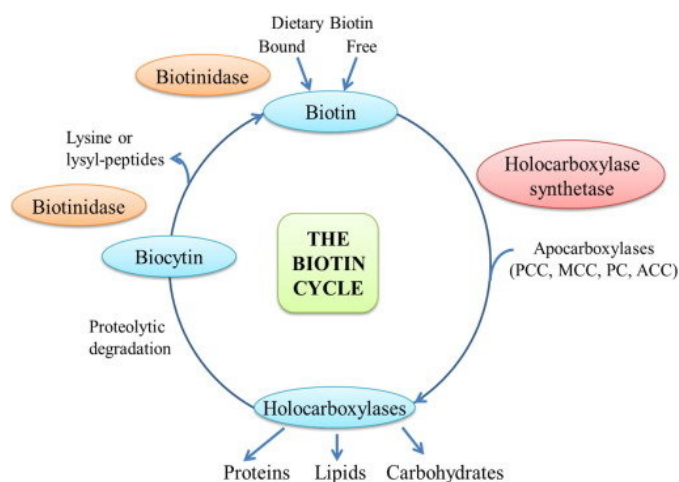
WHAT BIOTIN THE NUTRIENT DOES AND HOW IT IS USED AND RECYCLED

46. When biotin is ingested as food, it can be in the free form that can be absorbed and immediately used or in the protein-bound form, which when absorbed must be released from the protein before it can be made available.

47. Evolution/mother nature has provided a solution to liberate this bound biotin—an enzyme called biotinidase. After the biotin-bound protein is degraded by proteases (protein-breakdown enzymes), the biotin is still attached to small peptides ("biotinylated peptides") or biocytin (lysine connected to biotin). These biotinylated peptides or biocytin are then acted on by biotinidase. The biotin is released from its protein-related substances (e.g., small peptides or the amino acid lysine as biocytin) by biotinidase to enter the free biotin pool.

THE BIOTIN CYCLE

48. The figure below depicts the biotin cycle and how biotin is used in our metabolism (beginning at the top at 12 o'clock and going clockwise)



49. Initially, dietary biotin enters what is called the “free biotin pool” by one of two ways: (1) some amount of free biotin produced in the intestine can be absorbed and directly enters the free biotin pool or (2) biotin connected chemically (covalently bound to a protein or peptide) is first digested by proteases to produce biotin that is still connected to the small peptides (pieces of proteins) or biocytin. Since the biotin is still bound to a small peptide or to lysine, it cannot be used until it is enzymatically released by biotinidase forming free biotin that can then enter the free biotin pool and be used in our metabolism as discussed below.

50. The biotin in the free biotin pool can then be attached to the various inactive, apocarboxylases: propionyl-CoA carboxylase (“PCC”), 3-methylcrotonyl-CoA-carboxylase (“MCC”), pyruvate carboxylase (“PC”), and acetyl-CoA carboxylase (“ACC”), through the action of the enzyme, holocarboxylase synthetase. This process is called biotinylation. With their biotin attached (biotinylated), the active holocarboxylases can now perform their respective metabolic functions.

51. Depending on the specific apocarboxylase to which the free biotin is attached, these carboxylases function in one of three main metabolic processes – protein catabolism (PCC and MCC), fatty acid synthesis (ACC), or gluconeogenesis (PC). Therefore, these carboxylases are important for protein, fat and carbohydrate metabolism.

52. These holocarboxylases are eventually proteolytically degraded. This degradation results in the formation of biotin connected covalently to small peptides or lysine as biocytin. The biotinylated peptides and Biocytin are subsequently cleaved by biotinidase liberating free biotin, thereby making the biotin once again available to the free biotin pool. Thus, biotin is recycled and can be reused repeatedly through this cycle.

53. The precise amount of biotin that is recycled is not known with precision, but what is known is that recycling can supply a substantial amount of biotin for a normal individual to maintain normal biotin-related biochemical functions and to have a healthy life without the need for biotin supplementation.

**FRANK BIOTIN DEFICIENCY AND THE ANALYSIS OF FOUR RARE BIOTIN
RELATED DISORDERS THAT DEMONSTRATE BIOTIN THE NUTRIENT DOES
NOT SUPPORT HAIR, SKIN, OR NAIL HEALTH.**

54. Frank biotin deficiency, an extremely rare state, occurs when a person fails to obtain sufficient free biotin either from their diet or through recycling. This exceedingly rare event results in severe disruption of specific metabolic pathways

55. It is important to understand that the hypothesis that biotin, the nutrient, supports hair and skin health was initially premised on observations that one of the initial symptoms of frank biotin deficiency *may* be hair and skin problems, but even then, it is only in some, but not all individuals who experience this rare condition. As an aside, poor nail health is not one of the initial symptoms of frank deficiency, instead, it appears that the hypothesis that biotin affects nail health originated in some very old observations of farm animals whose feed had insufficient amounts of biotin and whose brittle hooves were remedied simply by putting supplemental biotin in their feed. Nevertheless, it appears that these two early hypotheses led Defendants and others to promote supplemental biotin for hair, skin, and nail health.

56. It was discovered that a substance called avidin, a protein found in raw egg whites, can strongly bind to biotin and biotinylated proteins, making the biotin unavailable to the body or to the action of biotinidase.

57. Thus, if one consumed extremely large amounts of raw egg whites (beyond that which even bodybuilders consume if they choose raw egg white powder as their protein of choice)

a state of frank biotin deficiency can be achieved. However, this requires weeks or months on this extremely abnormal, self-induced diet.

58. Subsequent to the discovery of the effect of avidin, researchers induced frank biotin deficiency in a clinical setting in an experiment conducted in the 1940s. Individuals were fed a diet containing large quantities of avidin, thereby severely reducing their available free biotin - something that has never again been performed because it is, of course, unethical. After about six weeks of this wholly unnatural regimen, they began to develop symptoms of frank biotin deficiency and for some, the initial symptoms were hair thinning and skin problems.

59. Moreover, since frank biotin deficiency does not exist in the general population unless someone intentionally induces it in order to harm themselves, it can be readily corrected by merely stopping the consumption of excessive amounts of raw egg whites.

60. Decades ago, it was observed that some individuals who were administered long-term intravenous feeding (parenteral hyperalimentation) developed symptoms of frank biotin deficiency. It was determined that they were experiencing frank biotin deficiency because their intravenous feeding was devoid of biotin. This was readily corrected by supplementing the intravenous feedings with biotin. Now all similar feedings contain biotin.

61. Likewise, because Japan banned including biotin in infant formula for a period of time, infants fed solely on formula began exhibiting symptoms of frank biotin deficiency. Once it was determined that it was due to the lack of biotin, this too was readily corrected by including biotin in the formula.

62. An instance of frank biotin deficiency was also observed when biotinidase deficiency was discovered by Wolf and colleagues in the early-1980s.

63. Biotinidase deficiency occurs when an individual has mutations in both of their biotinidase genes resulting in less than 10 % of mean normal serum biotinidase activity.

64. Without sufficient biotinidase activity, the body cannot free protein-bound dietary biotin nor recycle biotin that is biotinylated after being employed in a metabolic process and over a fairly lengthy period of time (i.e. weeks to months), such persons develop frank biotin deficiency because without sufficient free biotin, the individual has dysfunctional carboxylase activities and the disruption of the metabolic pathways involving these carboxylases occurs on a large scale.

65. If a child with biotinidase deficiency is left untreated, the disorder can cause severe neurological problems and some can eventually become comatose and die. Similar to that of the individuals in the 1940s experiment, some infants with biotinidase deficiency exhibited hair loss and rashes.

66. Fortunately, Wolf and colleagues discovered that individuals with biotinidase deficiency, if treated early with pharmacological doses of biotin at the mega-dose quantities sold to the general population by Defendants, can ameliorate or prevent the development of symptoms. This is precisely why newborn screening for biotinidase deficiency is performed in all the states in the United States and in many countries.

67. Apparently, Defendants and others unscientifically assume that because persons with frank deficiency such as those with this rare disorder benefit from mega-dose biotin and some exhibited hair and skin problems as their initial symptoms, they could market and sell mega-dose biotin to the general population for hair and skin, despite the well-settled science that those in the general population derive more biotin than they need both from the foods they eat and from biotin recycling.

68. Moreover, as set forth below, it is the complete disruption of their metabolism (as opposed to merely a so-called metabolic derangement) and not the absence of free biotin that is the cause all of the health problems, including the initial hair and skin problems for some, for persons with this disorder

69. There are two reasons for this. Their metabolic pathways are disrupted and they are not getting enough energy or elevated concentrations of toxic or harmful metabolites accumulate and can interfere with various normal metabolic pathways and functions.

70. So, contrary to the urban myth that biotin, the nutrient, supports hair, skin, and nail—a myth based on the observations of the initial symptoms caused by frank deficiency and faulty animal feed—it is the disruption of the metabolism that causes this cascade of symptoms (including hair and skin problems) and not a deficiency of biotin.

71. In other words, there is no direct link between biotin the nutrient and hair, skin, or nail health, such that taking supplemental biotin or even ingesting more biotin the nutrient from a natural diet would result in supporting hair, skin, or nail health.

72. But there is more—other rare genetic disorders further support the conclusion that biotin does not support hair, skin, or nail health.

73. One of these inherited disorders is known as holocarboxylase synthetase deficiency due to defective holocarboxylase synthetase activity. Holocarboxylase synthetase is the enzyme that covalently attaches free biotin to the various apocarboxylases to make active holocarboxylases (see biotin cycle figure). These individuals, like those with biotinidase deficiency, experience a disruption of their carboxylase pathways and can develop neurological and/or cutaneous features, such as hair loss and skin rashes. However, individuals with holocarboxylase synthetase deficiency do not have frank biotin deficiency. This is because they adequately absorb dietary biotin and their

biotinidase activity is normal, such that more than sufficient free biotin is available. However, similar to biotinidase deficiency, two of the frequent, initial symptoms of holocarboxylase synthetase deficiency are hair and skin problems. However, the hair and skin issues are not due to biotin deficiency but are due to a holocarboxylase deficiency.

74. Thus, if biotin were actually linked to support hair and skin health as is the hypothesis derived from the early observations of frank biotin deficiency, one would not expect persons with holocarboxylase deficiency to experience hair and skin problems because they have sufficient amounts of free biotin – yet they do.

75. This is because, like biotinidase deficiency, with holocarboxylase synthetase deficiency it is the disruption of the metabolic processes that is causing the symptoms, not an absence or deficiency of biotin.

76. But there is still more—there are other rare genetic disorders, such as propionic acidemia and methylmalonic acidemia, that further cement the conclusion that it is the disruption of metabolism and not the absence of free biotin that causes hair and skin problems.

77. These two disorders, like biotinidase deficiency and holocarboxylase synthetase deficiency, are both characterized by disruptions of our metabolism, some of which overlap with those of biotinidase and holocarboxylase synthetase deficiencies. Some individuals with propionic acidemia and methylmalonic acidemia also can exhibit hair and skin problems.

78. Again, persons with these disorders have all the free biotin they need and they are not biotin deficient because their biotinidase activity is normal.

79. In fact, the usual treatment for these latter two disorders is restricting their dietary intake of protein which, in turn, may even reduce the amount of biotin they ingest from foods. In

fact, biotin supplementation almost always fails to improve symptomatic individuals with either of these two disorders.

80. Thus, their hair and skin improve with a treatment of a restricted protein diet, but not with supplemental biotin.

81. In short, the foregoing demonstrates that biotin the nutrient does not support hair and skin health because it is not its absence that causes the hair and skin problems experienced by those with frank biotin deficiency.

82. In addition, because the basis for the hypothesis that there is a direct connection between biotin and hair/skin/nail health derived from the observations of those with frank deficiency, it is erroneous.

83. The fact is that biotin the nutrient has a limited and well-documented function as a key player in our metabolism and nothing more.

84. Biotin has no function in supporting hair, skin or nail health.

85. Thus, for those in the general population who do not have one of the rare conditions described above, they have more than enough free biotin from their diets and recycling to ensure that their metabolism functions properly, and they have no need whatsoever for any amount of supplemental biotin, let alone Defendants' mega-dose biotin products.

86. Accordingly, if, in fact someone has hair, skin or nail problems, these are not due to any sort of deficiency in biotin, but rather, are due to the other causes unrelated to any degree of biotin deficiency.

87. For example, with regard to hair problems experienced by those in the general population, the cause could be any number of entities, such as diabetes, lupus, lichen planus, sarcoidosis, scalp psoriasis, or alopecia areata etc.

88. None of the above hair conditions are related to or caused by a deficiency in biotin.

89. In fact, researchers attempted to induce what they hypothesized to be marginal biotin deficiency in healthy subjects (see discussion below about the failure of the marginal deficiency hypothesis) by reducing the availability of free biotin by feeding the subjects large amounts of raw egg whites (smaller amounts than used in the 1940s study). Even though the researchers believed they had induced some degree of “marginal” biotin deficiency, not one of the study subjects showed any hair, skin or nail problems.

90. Thus, the weight of the credible scientific evidence demonstrates that biotin the nutrient has no direct connection with and does not help support hair, skin or nail health.

91. However, even if it were true – that biotin the nutrient derived from food does directly support hair, skin and nails, Defendants’ labeling representations would, at a minimum, be false and misleading, because, as more fully set forth below, well-established science proves that supplemental biotin, and Defendants’ mega-dose biotin supplements, in particular, are superfluous, worthless, cannot, and do not support hair and skin health.

92. Therefore, although treatment of biotinidase deficiency with mega-dose biotin resolves its various symptoms, including hair and skin problems, it is not due to the supplemental biotin supporting hair and skin, but rather, is due to the disrupted metabolic pathways being restored to normal.

93. And despite the millions of dollars that Defendants have made and still make off the sale of their biotin products, they have not conducted any clinical trials to prove the veracity of their labeling claims, and there have been no clinical trials testing whether supplemental biotin helps support hair, skin or nails.

94. Moreover, there is no clinical evidence that biotin the nutrient supports hair, skin, or nails or that problems with hair, skin, or nails are caused by a deficiency in biotin. Based upon the well-accepted science regarding biotin as set forth herein, such trials would be futile and a waste of time and money, providing a further explanation as to why such clinical trials have not been conducted.

95. The allegations in paragraph 94 are not intended to assert a lack of substantiation claim. Rather, they further corroborate that other science, such as body chemistry and other science plead herein, amply provides the answer to the question of whether or not Defendants' products work as represented and provide the promised health benefits, and that answer is a resounding "no."

96. The fact is that the causes of hair, skin, or nail problems are numerous and varied, and none have been connected to any purported deficiency in biotin.

**MISCELLANEOUS RED HERRING CONTENTIONS PURPORTEDLY
SUPPORTING THE USE OF SUPPLEMENTAL BIOTIN HAVE NO SCIENTIFIC
MERIT OR RELEVANCE**

97. Some random observations made decades below have been cited as examples of such things as "marginal deficiency" or for the need for some amount of supplemental biotin for some people.

98. There were a few early case studies (not randomized, controlled clinical trials) involving persons with even rarer diseases/conditions, such as one labeled "uncombable hair" syndrome (another rare genetic disorder that occurs in 1/100,000) or persons with "brittle" nails which claimed that supplemental biotin helped treat such conditions.

99. But these are case studies, not clinical trials, and have for years been consistently debunked as unreliable and not meeting the standards of scientific reliability for any number of

reasons. Moreover, their unreliability is further demonstrated by the fact that no one has attempted a clinical trial to confirm that these essentially anecdotal occurrences and observations are in any way remedied by supplemental biotin.

100. Other hypotheses about persons who may experience “marginal deficiency” also surfaced decades ago but have languished and have never been followed up with the required confirmatory research. They are: (1) persons on anticonvulsants (primarily those with epilepsy); (2) women smokers; and (3) chronic alcoholics.

101. Since then it has become clear that the body only needs a finite amount of these enzymatic functions performed on a daily basis, and the need for biotin in the general population is finite and more than fully satisfied through diet and biotin recycling.

102. Thus, these hypotheses, like marginal deficiency, have been abandoned and are no longer being researched.

103. In short, once one consumes a sufficient amount of biotin, which is easily met by the general population in their everyday diets, the remainder becomes functionally superfluous, does not provide any additional health benefits, and is ultimately excreted, including Defendants’ Biotin Products.

104. Thus, Defendant’s health benefit representations are false, misleading, or reasonably likely to deceive consumers.

105. As a result, consumers – including Plaintiff and members of the proposed Classes – have purchased Biotin Products that do not perform as represented.

106. Plaintiff brings this action on behalf of herself and other similarly situated consumers who purchased the Biotin Products, to halt the dissemination of this false, misleading,

and deceptive advertising message, and to obtain redress for those who have purchased the Biotin Products.

JURISDICTION AND VENUE

107. This Court has original jurisdiction pursuant to 28 U.S.C. §1332(d)(2). The matter in controversy, exclusive of interest and costs, exceeds the sum or value of \$5,000,000, is a class action in which there are in excess of 100 class members, and some members of the Class are citizens of a state different from Defendant.

108. This Court has personal jurisdiction over Defendants because Defendants are authorized to conduct and do conduct business in Illinois, including this District. Defendants marketed, promoted, distributed, and sold the Biotin Products in Illinois, and Defendants have sufficient minimum contacts with this State and/or sufficiently availed themselves of the markets in this State through their promotion, sales, distribution, and marketing within this State, including this District, to render the exercise of jurisdiction by this Court permissible. In addition, the acts complained of occurred in Illinois, as Plaintiff was exposed to, read and relied upon Defendants' false representations and was injured by her purchase of the Biotin Products in Illinois.

109. Venue is proper in this Court pursuant to 28 U.S.C. §§1391(a) and (b) because a substantial part of the events giving rise to Plaintiffs' claims occurred while they resided in this judicial district. Venue is also proper under 18 U.S.C. §1965(a) because Defendants transact substantial business in this District, and the acts complained of occurred in this judicial district, as Plaintiffs read and relied upon Defendants' false representations and were injured by her purchases of Defendants' Biotin Products in this judicial district.

PARTIES

110. During the relevant time period, Plaintiff Tamara Dervin has purchased several of Defendants' biotin products including the 5,000 mcg and 10,000 mcg products. On each such occasion Plaintiff was exposed to, read, and purchased said products in reliance upon Defendants' representations that the products would support hair, skin, and nail health, with her primary focus being on support of her hair. Thus, for example, on or about December of 2020 or January of 2021, Plaintiff was exposed to, read, and relied upon Defendants' health benefit representations by reading the front of the Nature's Bounty Biotin (5000 mcg; 150 count) bottle:



Plaintiff purchased the Product at a Mariano's or Target in Chicago, Illinois in reliance on Defendants' health benefit representations and paid approximately \$11.99 for the Product. Plaintiff Dervin, as well as other consumers of this Product, were exposed to or reasonably relied upon the health benefit representations to mean that the biotin in the Product provided the represented health benefits. As a result, Plaintiff Dervin, as well as other consumers of Defendants' Biotin Products were misled into paying money for products that were worthless. And while Plaintiff's primary motivation in buying Defendant's biotin products was for her hair, as shown above the science that will prove that the hair representation is false or misleading is the same as that which will prove that the skin and nails representations are false or misleading.

111. Had Plaintiff Dervin known the truth about Defendants’ misrepresentations, she would not have purchased their Biotin Products. Indeed, no reasonable consumer would purchase a worthless product. As a result, Plaintiff Dervin, as well as other consumers of Defendants’ Biotin Products, suffered the same injury in fact – being induced to purchase a worthless product, were injured and lost money at the time of purchase.

112. During the relevant time period, Plaintiff Dervin resided in Chicago, Illinois.

113. Defendant NBTY, Inc. (“NBTY”) is a corporation organized and existing under the laws of the state of Delaware. Nature’s Bounty, Inc. (“Nature’s Bounty”) is a subsidiary of NBTY. Nature’s Bounty is headquartered at 110 Orville Drive, Bohemia, New York 11716. Nature’s Bounty manufactures, distributes, markets and sells the Biotin Products to consumers nationwide, including in Illinois.

THE IMPACT OF DEFENDANTS’ WRONGFUL CONDUCT

114. Plaintiff and Class members have been and will continue to be deceived or misled by Defendants’ deceptive health benefit representations. Plaintiff and the Class members have been damaged in their purchases of the Biotin Products and have been deceived into purchasing the Biotin Products that they believed, based on Defendants’ representations, would provide them health benefits, when, in fact, they do not.

CLASS DEFINITION AND ALLEGATIONS

115. Plaintiff brings this action on behalf of herself and all other similarly situated consumers pursuant to Rule 23(a) and (b)(3) of the Federal Rules of Civil Procedure and seek certification of the following Classes in the alternative:

Nationwide Class Action

All consumers who, within the applicable statute of limitations period until the date notice is disseminated, purchased Biotin Products within the United States.

Multi-State Class Action

All consumers who, within the applicable statute of limitations period until the date notice is disseminated, purchased Biotin Products in California, Florida, Illinois, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, and Washington.

Excluded from this Class(es) are Defendant and its officers, directors, employees and those who purchased Biotin Products for the purpose of resale.

116. In the alternative, Plaintiffs seek certification of the following Class:

Illinois-Only Class Action

All Illinois consumers who, within the applicable statute of limitations period until the date notice is disseminated, purchased Biotin Products.

Excluded from this Class are Defendant and its officers, directors and employees, and those who purchased Biotin Products for the purpose of resale.

117. **Numerosity.** The members of the Classes are so numerous that joinder of all members of the Classes is impracticable. Plaintiff is informed and believes that the proposed Classes contain thousands of purchasers of Biotin Products who have been damaged by Defendants' conduct as alleged herein. The precise number of Class members is unknown to Plaintiffs.

118. **Existence and Predominance of Common Questions of Law and Fact.** This action involves common questions of law and fact, which predominate over any questions affecting individual Class members. These common legal and factual questions include, but are not limited to, the following:

- (a) whether Defendants' health benefit representations are false, misleading, or objectively reasonably likely to deceive;
- (b) whether Defendants' alleged conduct is unlawful;
- (c) whether the alleged conduct constitutes violations of the laws asserted;
- (d) whether Defendants engaged in false, misleading or deceptive advertising; and

- (e) whether Plaintiff and Class members are entitled to appropriate remedies, including restitution.

119. **Typicality.** Plaintiff's claims are typical of the claims of the members of the Classes because, inter alia, all Class members paid money for Products containing biotin and were injured through the uniform misconduct described above as biotin does not provide the hair, skin, or nail benefits represented on the front of the Product labels. Plaintiff is also advancing the same claims and legal theories on behalf of herself and all members of the Classes.

120. **Adequacy of Representation.** Plaintiff will fairly and adequately protect the interests of the members of the Classes as they, like all Class members, paid money for biotin that is worthless as it does not help support healthy hair, skin, or nails or provide any other health benefit. Plaintiff has retained counsel experienced in complex consumer class action litigation, and Plaintiff intends to prosecute this action vigorously. Plaintiff has no adverse or antagonistic interests to those of the Classes.

121. **Superiority.** A class action is superior to all other available means for the fair and efficient adjudication of this controversy. The damages or other financial detriment suffered by individual Class members is relatively small compared to the burden and expense that would be entailed by individual litigation of their claims against Defendants. It would thus be virtually impossible for members of the Classes, on an individual basis, to obtain effective redress for the wrongs done to them. Furthermore, even if Class members could afford such individualized litigation, the court system could not. Individualized litigation would create the danger of inconsistent or contradictory judgments arising from the same set of facts. Individualized litigation would also increase the delay and expense to all parties and the court system from the issues raised by this action. By contrast, the class action device provides the benefits of adjudication of these

issues in a single proceeding, economies of scale, and comprehensive supervision by a single court, and presents no unusual management difficulties under the circumstances here.

122. Plaintiffs, on behalf of the entire Classes, on grounds generally applicable to the entire Classes, seek equitable relief requiring Defendants to provide full restitution to Plaintiffs and Class members.

123. Unless a Class is certified, Defendant will retain monies received as a result of its conduct that were taken from Plaintiffs and Class members.

COUNT I

Violation of the Illinois Consumer Fraud and Deceptive Business Practices Act (“the Act”) [815 ILCS 505/1 *et seq.*]

124. Plaintiff repeats and re-alleges the allegations contained in the paragraphs above, as if fully set forth herein.

125. Plaintiff brings this claim individually and on behalf of the Classes.

126. As alleged herein, Plaintiff has suffered injury in fact and lost money or property as a result of Defendants’ conduct because she purchased Defendants’ Biotin Products in reliance on Defendants’ claim that the Biotin Products would provide her with certain health benefits but did not receive Products that provide those benefits.

127. Plaintiff and the class suffered their injuries at the time of their purchases, when she and they bought products that do not provide the benefits Defendant promises.

128. The Act prohibits “Unfair methods of competition and unfair or deceptive acts or practices, including but not limited to the use or employment of any deception fraud, false pretense, false promise, misrepresentation or the concealment, suppression or omission of any material fact, with intent that others rely upon the concealment, suppression or omission of such material fact ...

in the conduct of any trade or commerce are hereby declared unlawful whether any person has in fact been misled, deceived or damaged thereby ...” (815 ILCS 505/2).

129. The respective consumer fraud acts of the various states are similar to or identical to that of the Act.

130. In the course of conducting business, Defendants committed violations of the Act by making false, deceptive or misleading representations as described above.

131. Plaintiff and other members of the Classes have in fact been deceived and injured as a result of their exposure to or reliance on Defendants’ material health benefit representations.

132. Plaintiff and the other Class members have suffered injury in fact and lost money as a result of their purchase(s) of Defendants’ Biotin Products that do not provide the represented health benefits.

133. Plaintiff, on behalf of herself and all others similarly situated, seek actual/out-of-pocket damages of the entire purchase price of the biotin products or, in the alternative the entire purchase price less the value of 30 mcg of supplemental biotin, if the fact finder finds that marginal deficiency may exist in some people, even though for those who purportedly would have marginal deficiency they would still not receive any hair, skin, or nail health benefits and instead would only receive the purported benefit of correcting a marginal deficiency (whatever that may be) that has no known symptomatic affects.

PRAYER FOR RELIEF

Wherefore, Plaintiffs pray for a judgment:

- A. Certifying the Classes as requested herein;
- B. Awarding actual damages;
- C. Awarding attorneys’ fees and costs; and

D. Providing such further relief as may be just and proper.

Jury trial demanded.

Dated: August 9, 2021

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